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**United States Patent** [19]**Symbolik et al.**[11] **Patent Number:** **5,455,057**[45] **Date of Patent:** **Oct. 3, 1995**[54] **PREPARATION OF A SOLUBLE COFFEE  
GRANULATE PRODUCT**4,640,839 2/1987 Hsu .  
5,375,776 12/1994 Kupper et al. .[75] Inventors: **William S. Symbolik**, Marysville; **Sean  
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Johnstown, all of Ohio[73] Assignee: **Nestec S.A.**, Vevey, Switzerland[21] Appl. No.: **304,358**[22] Filed: **Sep. 12, 1994**[51] **Int. Cl.<sup>6</sup>** ..... **A23F 5/36**[52] **U.S. Cl.** ..... **426/385**; 426/594; 426/285;  
426/453; 426/388[58] **Field of Search** ..... 426/594, 385,  
426/285, 453, 388[56] **References Cited****U.S. PATENT DOCUMENTS**3,493,388 2/1970 Hair .  
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Inc., Westport, Conn. (1979) pp. 484-498; 532; and  
538-539.*Primary Examiner*—Joseph Golian  
*Attorney, Agent, or Firm*—Vogt & O'Donnell[57] **ABSTRACT**

A soluble coffee product which has the appearance of roast and ground coffee particles. The product is produced by a process in which a coffee extract is frozen, comminuted into particles, freeze-dried, and darkened. During the process, the particles are separated into an oversize fraction of size greater than about 1.1 mm (16 US Standard mesh), a fines fraction of size less than about 0.87 mm (20 US Standard mesh), and a middle fraction of size between the oversize fraction and the fines fraction. Then, the middle fraction is separated into a by-pass fraction and a major fraction, the by-pass fraction forming 2 to 20% by weight of the middle fraction. The major fraction and the fines fraction are then combined and the particles in the combination are darkened. The darkened particles and the by-pass fraction are then combined to provide the soluble coffee product.

**23 Claims, 5 Drawing Sheets**